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ARUNDINARIA? — Lower Moho R., October 16, 1906, *M. E. Peck*, no. 560. Without inflorescence, probably an *Arundinaria*, possibly *A. longifolia* Fourn.

V. DIAGNOSES AND TRANSFERS AMONG THE SPERMATOPHYTES.

BY B. L. ROBINSON.

IN the course of routine work at the Gray Herbarium during the last few months the writer has found it necessary to employ a number of new names, resulting either through transfers of the plants in question or rendered needful by the provisions of the International Rules of Botanical Nomenclature. That these names may have proper status they are here given published record, together with a few diagnoses of new species. Two plants characterized at the Gray Herbarium by Mr. Sidney F. Blake and a transfer made by Mr. Sumner C. Brooks are included by request.

Inga (§ **Diadema**) **Peckii**, spec. nov., pedunculis exceptis glabra; ramis teretibus cortice griseo a lenticellis numerosis scabrato tectis plus minusve geniculatis; foliolis 2-3-jugis, oblongis petiolulatis subcoriaceis supra subnitidis subtus opacis vel subglaucescentibus apice basique acuminatis 9-17 cm. longis 3.5-7.5 cm. latis penninerviis; petiolulis 4-6 mm. longis; rhachi commune ca. 1.5 dm. longo striato-angulato exalato; pedunculis brevibus gracilibus ex eodem axillo plurimis; receptaculo ovoideo, capitibus globosis saepius 12-18-floris; floribus sessilibus; calyce ca. 2 mm. longo subcylindrato margine brevissime dentato obsolete hispidulo-ciliato aliter glabro; corolla glabra graciliter tubulata sursum leviter gradatimque ampliata, dentibus limbi brevissimis deltoideis; tubo staminum exserto; legumine glabro falcato-oblongo ca. 13 cm. longo ca. 2.2 cm. lato 11-seminato.— British Honduras, *Prof. Morton E. Peck*, no. 673 (type, in Gray Herb.). A species nearly related to *I. jinicuil* Schlecht. but differing in its much shorter peduncles, thicker duller and less reticulated leaflets, shorter corolla-teeth, exserted stamen-tube, etc. From the imperfectly described and wholly obscure *I. coriacea* (Moc. & Sess.) G. Don it differs in having leaflets symmetrical not oblique at the base.

Acacia bucerophora, spec. nov., fruticosa vel arborea; ramis tereti-

bus, cortice griseo pustulis suberosis fulvis maculato; aculeis infrastipularibus geminis rigidis patenti-ascendentibus arcuatis cavis 4–6 cm. longis basi 5 mm. diametro apicem attenuatam versum cum foramine verisimiliter a formicis facto munitis; foliis ca. 2 dm. longis ca. 8 cm. latis; petiolo 1 cm. longo subtereti supra canaliculato; pinnae 14–16-jugis lineari-oblongis contiguis vel etiam imbricatis falcatis basi obliquis apice rotundatis ca. 6 mm. longis 1 mm. latis glabris subtus pallidioribus; inflorescentiis globosis usque ad 15 ex eodem axillo; pedunculis brevibus 1–2.5 cm. solum longis ca. 2–4 mm. supra basin cum involuero annulari squamuliformi saepius 3-partito instructis nec non media in parte cum involucello simili munitis; calyce subcylindrico parum superne ampliato breviter 4-dentato; corolla breviter exserta glabra; legumine sessili falcato-lineari ca. 14 cm. longo 6 mm. solum lato margine valde incrassato faciebus concavis glabris apice basique attenuato.—British Honduras, *Prof. Morton E. Peck*, no. 632 (type, in Gray Herb.). Another species of the highly interesting ant-inhabited Acacias like *A. sphaerocephala* Cham. & Schlecht., *A. spadicigera* Cham. & Schlecht., *A. Hindsii* Benth., etc., but differing from all these markedly in the double involucre of the peduncles, as well as in the long narrow pod, and various other features.

SESBANIA VESICARIA (Jacq.) Ell., var. **atro-rubra** (Nash) S. C. Brooks, comb. nov. *Glottidium floridanum* (Willd.) DC., var. *atro-rubrum* Nash, Bull. Torr. Bot. Club, xxiii. 101 (1896). *G. vesicarium atrorubrum* (Nash) Small, Fl. S. E. U. S. 615 (1903).

Aeschynomene tenerrima, spec. nov., herbacea gracilis palustris ca. 5 dm. alta ubique glaberrima; caule tereti pallide brunneo deorsum leviter spongiose incrassato supra gracillimo paucirameo, ramis ascendentibus subfiliformibus; foliis 2–3.5 cm. longis brevissime petiolatis; rhachi filiformi; foliolis ca. 18-jugis minutis oblongis basi obliquis apice rotundatis 2–2.3 mm. longis 1 mm. latis utrinque pallide viridibus concoloribus; racemis axillaribus 2–3-floris gracillimis; bracteis lanceolatis subscarioso-brunneis vel -purpureis vix 1 mm. longis; floribus anthesi ca. 2.8 mm. longis; calyce herbaceo pallide viridi plus minusve bilabiato, fructifero persistenti brunnescenti; petalis violascentibus ca. 2–2.5 mm. longis; legumine longe (ca. 5 mm.) graciliterque stipitato valde ex calice exserto, articulo unico semiorbiculari 4 mm. longo glabro margine incrassato apice cum styli basi torta vel curvata appendiculato faciebus leviter reticulato-venosis.—Swamp near Ycaco Lagoon, British Honduras, 15 May, 1907, *Prof. Morton E. Peck*, no. 900 (type, in Gray Herb.). A very delicate palustrine species with exceedingly small leaflets and inconspicuous

flowers, not closely related to any other Mexican or Central American species, though clearly of the genus.

WISSADULA SPICATA (HBK.) Presl, Rel. Haenk. ii. 117 (1830). *Abutilon spicatum* HBK. Nov. Gen. et Spec. v. 271 (1821). To the synonymy of this species may be added *Wissadula elongata* Brandegee, Zoe, v. 210 (1905), from Cofradia in the vicinity of Culiacan, Sinaloa.

Linociera oblanceolata, spec. nov., fruticosa vel arborea; ramis gracilibus teretiusculis cortice griseo tectis; ramulis fulvido-puberulis; foliis vix coriaceis oblanceolatis utrinque glabris 11–13 cm. longis 3.5–4.2 cm. latis apice caudato-acuminatis basi sensim angustatis, petiolo proprio teretiusculo puberulo 3–4 mm. solum longo; paniculis laxis 6–8 cm. longis gracillimis ex axillis superioribus foliorum verorum oriuntibus flavido-puberulis; floribus graciliter 3–5 mm. longe pedicellatis; calycis lobis ovatis acuminatis patentibus 1.2 mm. longis flavido-puberulis; petalis margine valde involutis caudiformibus 7–10 mm. longis; antheris 1 mm. longis obtusis, filamentis brevissimis, connectivo apice non productis; fructu crassiuscule clavato 1.9 cm. longo 8 mm. diametro in specimine sicco nigrescente.— Forest, upper Moho River, British Honduras, 16 March, 1907, *Prof. Morton E. Peck*, no. 719 (type, in Gray Herb.). This species differs from *L. caribaea* (Jacq.) Knobl. by its unappendaged anthers. From *L. Bakeri* Urb. of Cuba it may be distinguished by its larger oblanceolate acuminate and even more shortly petioled leaves.

Strychnos (§ Longiflorae) Peckii, spec. nov., fruticosa cirrhifera; ramis subteretibus a cortice griseo laevi tectis; ramulis gracilibus rectis patentissimis plus minusve sulcatis fulvo-puberulis apicem versus saepissime bifoliatis; cirrhis spiraliter aduncis 2–3 cm. longis usque ad 4 mm. crassis lignescentibus; foliis ovato-ellipticis acute acuminatis 7–11 cm. longis 3.4–5 cm. latis firme membranaceis glabris supra viridibus laevibus subtus distincte pallidioribus obscure puncticulatis 5-nervatis, nerviis saltim basim versus minutissime strigillosis; inflorescentiis axillaribus brevibus multifloris subglobosis glomeruliformibus; bracteis lineari-lanceolatis 3–4 mm. longis, bracteolis minutis obscurisque; pedicellis brevibus fulvo-puberulis; calyce rotato 5-lobato, lobis ovatis acuminatis patentibus ciliolatis; corolla 1 cm. longa, tubo cylindrato 7 mm. longo extus patente fulvo-tomentello, lobis patentibus acutatis supra ut faucibus dense flavo-barbatis; antheris anguste oblongis vix exsertis; stylo nunc modice nunc vix exserto.— Forest, Sittee River, British Honduras, 15 April, 1907, *Prof. Morton E. Peck*, no. 856 (type, in Gray Herb.). This species appears to approach *S. Erichsonii* Rich. Schomb. of British Guiana,

but the latter (known to the writer only from Progel's description in the Flora Brasiliensis, vi. pt. 1, 274) is said to have coriaceous leaves about three times as long as broad, and a corolla which is granulose-pulverulent on the outside. Furthermore, the figure of the corolla (Progel, l. c., t. 82, f. II.) shows the bearding only at the throat, while in the species here characterized it extends well out upon the lobes.

Gymnolomia acuminata Blake, spec. nov., herbacea ramosa strigoso-hispida caule tenui; foliis inferioribus oppositis superioribus alternis lanceolatis longe acuminatis crenulato-serrulatis basi cuneatis utrinque scabro-hispidis infra sparse glandulosis 5–8 cm. longis 1.2–1.8 cm. latis petiolis submarginatis 1 cm. longis dense hispido-strigosis basi ampliatis; ramis floriferis tenuibus ad apicem 3–5-capitulatis cum bracteis paucis linearibus subsessilibus munitis; capitulis longe (2.5–7.5 cm.) pedunculatis subglobosis 8–9 mm. diametro (radiis exclusis); disco convexo; involucri 6–7 mm. alti squamis triseriatis dense strigillosis interioribus ovalibus 3.5 mm. latis exterioribus duplo brevioribus late oblongis 2 mm. latis; radiis plerumque 8 flavis late oblongis subintegris 8 mm. longis; corollis disci flavis 3.5 mm. longis basi non ampliatis 10-nervatis glabris; styli ramis brevibus clavatis apice incrassatis breviappendiculatis; paleis subtruncate tridentatis apice pilosis; acheniis glabris atris oblongis incrassatis epapposis multistriatis 2.1 mm. longis apice obliquis.—Prope Gómez Fárias, Tamaulipas, Mexico, 13–21 April 1907, *Palmer* 582 (spec. typ. in herb. Grayano).—Species ad *G. latibracteata* Hemsl. arcte affinis, foliis infra hispido-strigosis capitulis minoribus squamis strigosis non minute strigillosis bene distincta.

Flourensia retinophylla Blake, spec. nov. frutex ramosissima cortice brunneo-canescente ramulis junioribus viscido-glutinosus; foliis anguste lanceolatis integerrimis utroque acuminatis mucronulatis glutinosus in petiolum brevisissimum marginatum angustatis 2.5–3.5 cm. longis 4–7.5 mm. latis punctatis venis reticulatis costa valida; capitulis in apicibus ramulorum dense racemosus (3–6) discoideis ca. 12-floris glutinosus turbinatis 10–12 mm. altis; pedunculis brevibus 1–3-bracteolatis; involucri 8 mm. alti squamis laxis 2–3-seriatis oblongo-lanceolatis subobtusis luteo-viridibus; paleis firmis obtusis mucronatis ca. 3-nervatis 8.5–9.8 mm. longis; corollis luteis 5 mm. longis (tubulo 1.1 mm.) dentibus apice resinosis; acheniis cuneatis 6 mm. longis leviter incrassatis dense villosis, aristis 2 serrulatis basi subampliatis 3 mm. longis, squamellis nullis.—Sierra de la Paila, Coahuila, Mexico, Nov. 1910, *Purpus* 4728 (spec. typ. in herb. Grayano conservatum).—Planta ut *F. laurifolia* DC. distributa, a qua

foliis parvis anguste lanceolatis et capitulis minoribus brevipedunculatis et floribus paucioribus satis differt.

JAUMEA TENUIFOLIA (Sch. Bip.) Klatt, *Leopoldina*, xxiii. 146 (1887), p. 6 of reprint. *Neurolaena tenuifolia* Sch. Bip. acc. to Klatt, l. c. This species, imperfectly characterized by Dr. Klatt, is shown by his fragments of type material to have rested upon a very immature specimen of some plant with pappus of capillary bristles and with the young corollas (still closed) purplish-tomentose. Though from the fragments at hand it is impossible to place the species in any genus, it may be said with perfect definiteness that the plant, with its fine capillary pappus, is not a *Jaumea*. Its habit is rather that of a *Eupatorium* than of a *Neurolaena*, but the florets are too immature to furnish distinctive generic or even tribal characters. The type number (*Liebmann*, no. 202 from Chinantla, Mexico) is doubtless in other herbaria and may well be in some of them represented in sufficiently mature condition to permit more precise identification. Information on this subject would be welcomed.

OXYAPPUS SCABER Benth. *Bot. Sulph.* 118, t. 42 (1844). There seems to be no doubt that Dr. Gray was entirely right in reducing to the synonymy of this species *Pentachaeta gracilis* Benth. in *Hook. Ic.* xii. 1, t. 1101 (1872), though the latter is maintained as a valid species by Hooker f. & Jackson in the *Index Kewensis*.

SCHKUHRIA schkuhrioides (Link & Otto), comb. nov. *Achyropappus schkuhrioides* Link & Otto, *Ic. Pl. Rar.* 59, t. 30 (1828). *Schkuhria senecioides* Nees, *Del. Sem. Hort. Bonn.* 1831; *Hemsl. Biol. Cent.-Am. Bot.* ii. 212 (1881).

ACTINEA Palmeri (Gray), comb. nov. *Actinella Palmeri* Gray, *Proc. Am. Acad.* xix. 31 (1883). *Plateilema Palmeri* (Gray) Cockerell, *Bull. Torr. Bot. Club*, xxxi. 462 (1904).

ACTINEA SCAPOSA (DC.) Ktze., var. **linearis** (Nutt.), comb. nov. *Actinella scaposa*, β *linearis* Nutt. *Trans. Am. Phil. Soc.* vii. 379 (1841). *Tetranneuris linearis* (Nutt.) Greene, *Pittonia*, iii. 267 (1898).

DYSSODIA Cav. The various efforts which have been made to separate *Hymenatherum* Cass. from *Dyssodia* Cav. have proved so unsatisfactory that it seems best to follow Hoffmann in *Engl. & Prantl, Nat. Pflanzenf.* iv. Ab. 5, 265 (1890), and regard the distinctions as being at best of subgeneric or sectional value. In accordance with this view, however, it is necessary to transfer several species, as follows:

DYSSODIA anomala (Canby & Rose), comb. nov. *Hymenatherum anomalum* Canby & Rose, *Contrib. U. S. Nat. Herb.* i. 105, t. 7 (1891).

D. aurantia (L.), comb. nov. *Aster aurantius* L. Sp. Pl. ii. 877 (1753). *Aster americanus*, *foliis pinnatis*, etc., Rel. Houst. 7, t. 18 (1781). *Dysodia appendiculata* Lag. Nov. Gen. et Spec. 29 (1816). *Clomenocoma aurantia* (L.) Cass. Dict. Sci. Nat. ix. 416 (1817), lix. 66 (1829). *Clappia aurantiaca* Benth. in Hook. Ic. xii. t. 1104 (1872).

D. aurantiaca (Brandegee), comb. nov. *Hymenatherum aurantiacum* Brandegee, Zoe, v. 258 (1908).

D. pentachaeta (DC.), comb. nov. *Hymenatherum Berlandieri* DC. Prod. v. 642 (1836). *H. pentachaetum* DC. l. c.; Gray, Proc. Am. Acad. xix. 42 (1883), where the two species of DeCandolle are united under the name of the latter from the standpoint of priority of position. *Thymophylla pentachaeta* (DC.) Small, Fl. S. E. U. S. 1295, 1341 (1903). In making the transfer to *Dyssodia* the author would have preferred to reinstate the first name employed by DeCandolle, but this is forbidden by Art. 46 of the International Rules, which reads, "When two or more groups of the same nature are united, the name of the oldest is retained. If the names are of the same date, the author chooses, and his choice cannot be modified by subsequent authors." In the case in hand, the two names *Berlandieri* and *pentachaetum* were of the same date. The species seem first to have been united by Gray, who chose the second of the two names, and this, of course, is decisive according to the article just quoted.

D. concinna (Gray), comb. nov. *Hymenatherum concinnum* Gray, Syn. Fl. i. pt. 2, 446 (1884).

D. diffusa (Gray), comb. nov. *Hymenatherum diffusum* Gray, Pl. Wright. i. 116 (1852).

D. Greggii (Gray), comb. nov. *Thymophylla Greggii* Gray, Pl. Fendl. 92 (1849). *Thymophyllum Greggii* (Gray) Hemsl. Biol. Cent.-Am. Bot. ii. 221 (1881). *Hymenatherum Greggii* Gray, Proc. Am. Acad. xix. 42 (1883).

D. Hartwegi (Gray), comb. nov. *Hymenatherum Berlandieri* Benth. Pl. Hartw. 18 (1839), by error of determination, not DC. *H. Hartwegi* Gray, Pl. Wright. i. 117 (1852).

D. Neaei (DC.), comb. nov. *Hymenatherum* ? *Neaei* DC. Prod. v. 642 (1836). *H. boeberoides* Gray, Pl. Wright. i. 115 (1852). *H. Naei* Hemsl. Biol. Cent.-Am. Bot. ii. 220 (1881); Gray, Proc. Am. Acad. xix. 41 (1883).

D. neo-mexicana (Gray), comb. nov. *Adenophyllum Wrightii* Gray, Pl. Wright. ii. 92 (1853). *Hymenatherum neo-mexicanum* Gray, Proc. Am. Acad. xix. 40 (1883), not *H. Wrightii* Gray, Pl. Fendl. 89 (1849).

D. PAPPOSA (Vent.) Hitchc. Trans. St. Louis Acad. Sci. v. 503 (4 February, 1891). This combination is referred by Durand & Jackson, Ind. Kew. Suppl. 1, p. 147 (1902), to O. Kuntze, Rev. Gen. i. 334 (September, 1891). There can, however, be no question as to the priority of Prof. Hitchcock's publication, which was reviewed in the Bulletin of the Torrey Botanical Club, xviii. 91 (issued 10 March, 1891).

D. pinnata (Cav.), comb. nov. *Aster pinnatus* Cav. Ic. iii. 6, t. 212 (1795). *Dysodia pubescens* Lag. Nov. Gen. et Spec. 29 (1816). *D. subintegerrima* Lag. l. c. *Boebera incana* Lindl. Bot. Reg. t. 1602 (1833). *Dysodia incana* (Lindl.) DC. Prod. v. 640 (1836). *Boebera subintegerrima* (Lag.) Spreng. Syst. iii. 545 (1826). *Clomenocoma*? *pinnata* DC. Prod. v. 641 (1836). *Dysodia integerrima* Hemsl. Biol. Cent.-Am. Bot. ii. 219 (1881), by error for *D. subintegerrima*.

D. polychaeta (Gray), comb. nov. *Hymenatherum polychaetum* Gray, Pl. Wright. i. 116 (1852). *Thymophylla polychaeta* (Gray) Small, Fl. S. E. U. S. 1295, 1341 (1903).

D. setifolia (Lag.), comb. nov. *Thymophylla setifolia* Lag. Nov. Gen. et Spec. 25 (1816). *Thymophyllum setifolium* Hemsl. Biol. Cent.-Am. Bot. ii. 221 (1881). *Hymenatherum setifolium* (Lag.) Gray, Proc. Am. Acad. xix. 42 (1883).

D. Thurberi (Gray), comb. nov. *Hymenatherum tenuifolium* var.? Gray, Pl. Wright. ii. 93 (1853). *H. Thurberi* Gray, Proc. Am. Acad. xix. 41 (1883).

D. tenuiloba (DC.), comb. nov. *Hymenatherum tenuilobum* DC. Prod. v. 642 (1836). *H. tenuifolium* Gray, Pl. Wright. i. 118 (1852), by error of determination, not Cass. *Thymophylla tenuiloba* (DC.) Small, Fl. S. E. U. S. 1295, 1341 (1903).

D. Treculii (Gray), comb. nov. *Hymenatherum* n. sp.? no. 13 Gray, Pl. Wright. i. 116 (1852). *Hymenatherum Treculii* Gray, Proc. Am. Acad. xix. 42 (1883). *Thymophylla Treculii* (Gray) Small, Fl. S. E. U. S. 1295, 1341 (1903).

D. Wrightii (Gray), comb. nov. *Hymenatherum Wrightii* Gray, Pl. Fendl. 89 (1849). *Thymophylla Wrightii* (Gray) Small, Fl. S. E. U. S. 1295, 1341 (1903).

POROPHYLLUM DECUMBENS DC. Prod. v. 650 (1836). *Kleinia suffruticosa* Lodd. Bot. Cab. xvi. t. 1561 (1829), not Willd. This is one of many plants, which have been described solely from cultivated specimens. The stock was thought to have originally come from Mexico, but though first brought into cultivation as early as the twenties, it has never been rediscovered in Mexico or Central America.

Furthermore the species seems to have passed out of cultivation long ago and is now obscure. The object of the present note is merely to call attention to the fact that, judged from character and Loddiges' colored plate, the species would seem to be exceedingly close to if not entirely identical with *P. linifolium* (L.) DC., var. *brevifolium* (Hook. & Arn.) Bak. Fl. Bras. vi. pt. 3, 283, t. 80, f. 2 (1884), a maritime plant, native of Uruguay.

POROPHYLLUM RUDERALE and **P. ELLIPTICUM**. Urban, Symb. Ant. i. 467 (1900), unites these species under the name *P. ellipticum* Cass. Dict. Sci. Nat. xliii. 56 (1826). This course may have been suggested by the fact that *P. ellipticum* Cass., a mere renaming of the original *Cacalia Porophyllum* L. Sp. Pl. ii. 834 (1753), in a certain sense perpetuates the earlier element in the combined species. However, the course is contrary to the International Rules of Botanical Nomenclature, which in Art. 46 are as follows: "Dans le cas de réunion de deux ou plusieurs groupes de même nature, le nom le plus ancien subsiste."³ In this case the oldest available name (the Linnaean specific name being rejected on account of its identity with the generic name) is *rudérale*, which going back to *Kleinia ruderalis* Jacq. Enum. 28 (1760), much antedates *ellipticum* of Cassini.

The writer fully concurs with Prof. Urban that the two plants should be treated as mere varieties of the same species. The following naming will correspond to the requirements of the International Rules.

P. RUDERALE (Jacq.) Cass. Dict. Sci. Nat. xliii. 56 (1826), at least as to name-bringing synonym. *Kleinia ruderalis* Jacq. Enum. 28 (1760). *Cacalia ruderalis* (Jacq.) Sw. Prod. 110 (1788). *Porophyllum ellipticum*, var. β *rudérale* (Cass.) Urb. Symb. Ant. i. 468 (1900).

P. rudérale, var. **ellipticum** (Cass.) Gray in herb. *P. ellipticum* Cass. Dict. Sci. Nat. xliii. 56 (1826).

FAUJASIA FLEXUOSA (Lam.) Benth. & Hook. f. Gen. Pl. ii. 443 (1873) acc. to Hook. f. & Jacks. Ind. Kew. i. 948 (1893). Identical with this species appears to be *Cacalia cuspidata* Klatt, Ann. Sci. Nat.

³ It may be noted here that the English translation is inaccurate and misleading. It runs "When two or more groups of the same nature are united, the name of the oldest is maintained." In this very case it may be seen that the name of the older species is *ellipticum* for that species (under another designation, it is true) dates back to 1753, indeed even into pre-Linnaean times, while on the other hand the oldest (available) specific name is *rudérale*, dating from 1760. Thus it is clear that the English translation by the use of the expression "the name of the oldest" instead of "the oldest name" is capable of quite another interpretation from the official French version, "le nom le plus ancien," which happily, as well as the German "der älteste Name," is unequivocal.

ser. 5, xviii. 374 (1873), the type of which, collected on the Isle of Bourbon by Richard, is now in the Gray Herbarium. Other specimens of *F. flexuosa* at hand show the species to have a fairly wide range of variation as to leaf-contour, in some cases reaching the short, subcordate, conspicuously cuspidate-caudate form of Klatt's type, in others passing to elongate lance-oblong shapes more or less cuneate at the base.

CELMISIA Cass. Dict. Sci. Nat. vii. 356 (1817). This genus of the *Senecioneae* was founded by Cassini upon a single South African species, which he called *C. rotundifolia* and which later proved to have been the plant previously named *Arnica tabularis* by Thunberg, Prod. Fl. Cap. 154 (1800). The genus *Celmisia*, thus having been originally based upon a single species, there can be no question as to its type. Furthermore, the name has not been mentioned in the lists of nomina conservanda or nomina rejicienda, so it must take its course under the rules of priority. Cassini subsequently, Dict. Sci. Nat. xxxvii. 259 (1825), included in his genus a plant collected by Gaudichaud in Australia, namely *C. longifolia* Cass., a plant belonging to the *Astereae*. When the *Compositae* were treated by DeCandolle he unfortunately took this latter, Australian plant as the type of the genus, and referred the original South African species to a newly named genus, *Alciope* DC. Prod. v. 210 (1836). This was, of course, contrary to the clause of Article 45 of the International Rules, which reads: "If the genus contains a section or some other division which, judging by its name or its species, is the type or the origin of the group, the name is reserved for that part of it." DeCandolle's treatment has been generally accepted and perpetuated until the present day. It is true, Dr. Otto Kuntze noted the inconsistency and restored *Celmisia* to its original application, but he referred the Australian and New Zealand element of the complex to the genus *Aster*, a reduction not likely to be generally followed upon taxonomic grounds. The current International Rules appear to call for the following revision of the nomenclature in the genera concerned.

Celmisia tabularis (Thunb.), comb. nov. *Arnica tabularis* Thunb. Prod. Fl. Cap. 154 (1800). *Celmisia rotundifolia* Cass. Dict. Sci. Nat. vii. 357 (1817). *Ligularia tabularis* (Thunb.) Less. Syn. Comp. 390 (1832) by implication. *Alciope Tabularis* (Thunb.) DC. Prod. v. 210 (1836).

C. tomentosa (Burm. f.), comb. nov. *Conyza tomentosa* Burm. f. Prod. 26 (1768). *Arnica lanata* Thunb. Prod. Fl. Cap. 154 (1800). *Ligularia lanata* (Thunb.) Less. Syn. Comp. 390 (1832) by implication. *Alciope lanata* (Thunb.) DC. Prod. v. 210 (1836).

C. tomentosa, var. **grandis** (Thunb.), comb. nov. *Arnica grandis* Thunb. Prod. Fl. Cap. 154 (1800). *Alciope lanata* β *grandis* (Thunb.) DC. Prod. v. 210 (1836).

Elcismia, nom. nov. (Anogram.) *Celmisia* Cass. Dict. Sci. Nat. xxxvii. 259 (1825), and of most subsequent authors, not Cass. Dict. Sci. Nat. vii. 356 (1817). *Aster* § *Celmisiana* Ktze. in Post & Ktze. Lex. Gen. Phan. 49 (1904) — a name by its adjectival form inappropriate for use in generic rank.

E. Adamsii (Kirk), comb. nov. *Celmisia Adamsii* Kirk, Trans. N. Z. Inst. xxvii. 329 (1894).

E. Adamsii, var. **rugulosa** (Cheesem.), comb. nov. *Celmisia Adamsii*, var. *rugulosa* Cheesem. Man. N. Z. Fl. 313 (1906).

E. argentea (Kirk), comb. nov. *Celmisia sessiliflora*, var. *minor* Petrie, Trans. N. Z. Inst. xv. 359 (1882). *C. argentea* Kirk, Stud. Fl. N. Z. 292 (1899).

E. Armstrongii (Petrie), comb. nov. *Celmisia Armstrongii* Petrie, Trans. N. Z. Inst. xxvi. 269 (1894).

E. bellidioides (Hook. f.), comb. nov. *Celmisia bellidioides* Hook. f. Handb. N. Z. Fl. 135 (1864).

E. Brownii (F. R. Chapm.), comb. nov. *Celmisia Brownii* F. R. Chapm. Trans. N. Z. Inst. xxii. 444 (1890).

E. Campbellensis (F. R. Chapm.), comb. nov. *Celmisia Campbellensis* F. R. Chapm. Trans. N. Z. Inst. xxiii. 407 (1891). *C. Chapmani* Kirk, Gard. Chron. ix. 731, f. 146 (1891).

E. cordatifolia (J. Buchanan), comb. nov. *Celmisia cordatifolia* J. Buchanan, Trans. N. Z. Inst. xi. 427 (1879). *C. petiolata*, var. *cordatifolia* (J. Buchanan) Kirk, Stud. Fl. N. Z. 286 (1899).

E. coriacea (Forst. f.), comb. nov. *Aster coriaceus* Forst. f. Prod. 56 (1786). *Celmisia coriacea* (Forst. f.) Hook. f. Fl. Antarc. i. 36 (4 July, 1844), & Fl. N. Z. i. 121, t. 32 (1853); Raoul, Ann. Sci. Nat. ser. 3, ii. 119 (August, 1844).

E. Dallii (J. Buchanan), comb. nov. *Celmisia Dallii* J. Buchanan, Trans. N. Z. Inst. xiv. 355, t. 35 (1882).

E. densiflora (Hook. f.), comb. nov. *Celmisia densiflora* Hook. f. Handb. N. Z. Fl. i. 130 (1864).

E. discolor (Hook. f.), comb. nov. *Celmisia discolor* Hook. f. Fl. N. Z. i. 123 (1853).

E. dubia (Cheesem.), comb. nov. *Celmisia dubia* Cheesem. Man. N. Z. Fl. 308 (1906).

E. Gibbsii (Cheesem.), comb. nov. *Celmisia Gibbsii* Cheesem. Man. N. Z. Fl. 300 (1906).

E. glandulosa (Hook. f.) comb. nov. *Celmisia glandulosa* Hook. f. Fl. N. Z. i. 124 (1853).

E. Haastii (Hook. f.), comb. nov. *Celmisia Haastii* Hook. f. Handb. N. Z. Fl. 131 (1864).

E. Hectori (Hook. f.), comb. nov. *Celmisia Hectori* Hook. f. Handb. N. Z. Fl. 135 (1864).

E. hieraciifolia (Hook. f.), comb. nov. *Celmisia hieraciifolia* Hook. f. Fl. N. Z. i. 124, t. 34B (1853).

E. hieraciifolia, var. **oblonga** (Kirk), comb. nov. *Celmisia hieraciifolia*, var. *oblonga* Kirk, Trans. N. Z. Inst. xxvii. 328 (1894).

E. holosericea (Forst. f.), comb. nov. *Aster holosericeus* Forst. f. Prod. 56 (1786). *Celmisia holosericea* (Forst. f.) Hook. f. Fl. Antarc. i. 36, (4 July, 1844); Raoul, Ann. Sci. Nat. ser. 3, ii. 119 (August, 1844).

E. incana (Hook. f.), comb. nov. *Celmisia incana* Hook. f. Fl. N. Z. i. 123 t. 34A (1853).

E. incana, var. **petiolata** (Kirk), comb. nov. *Celmisia incana*, var. *petiolata* Kirk, Stud. Fl. N. Z. 284 (1899).

E. laricifolia (Hook. f.), comb. nov. *Celmisia laricifolia* Hook. f. Fl. N. Z. ii. 331 (1855).

E. lateralis (J. Buchanan), comb. nov. *Celmisia lateralis* J. Buchanan, Trans. N. Z. Inst. iv. 226, t. 15 (1872).

E. lateralis, var. **villosa** (Cheesem.), comb. nov. *Celmisia lateralis*, var. *villosa* Cheesem. Man. N. Z. Fl. 302 (1906).

E. Lindsayi (Hook. f.), comb. nov. *Celmisia Lindsayi* Hook. f. Handb. N. Z. Fl. 132 (1864).

E. linearis (Armstr.), comb. nov. *Celmisia linearis* Armstr. Trans. N. Z. Inst. xiii. 337 (1881).

E. longifolia (Cass.), comb. nov. *Celmisia longifolia* Cass. Dict. Sci. Nat. xxxvii. 259 (1825).

E. longifolia, var. **alpina** (Kirk), comb. nov. *Celmisia longifolia*, var. *alpina* Kirk, Stud. Fl. N. Z. 289 (1899).

E. longifolia, var. **gracilentia** (Hook. f.), comb. nov. *Celmisia gracilentia* Hook. f. Fl. Antarc. i. 35 (1844). *C. longifolia*, f. *gracilentia* (Hook. f.) Kirk, Stud. Fl. N. Z. 289 (1899). *C. longifolia*, var. *gracilentia* (Hook. f.) Cheesem. Man. N. Z. Fl. 314 (1906).

E. longifolia, var. **major** (Kirk), comb. nov. *Celmisia gracilentia*, var. β . Hook. f. Fl. N. Z. i. 123 (1853). *C. longifolia*, ff. *major* & *asteliaefolia* Kirk, Stud. Fl. N. Z. 289 (1899).

E. longifolia, var. **graminifolia** (Hook. f.), comb. nov. *Celmisia graminifolia* Hook. f. Fl. Antarc. i. 35 (1844). *C. longifolia*,

f. *graminifolia* (Hook. f.) Kirk, Stud. Fl. N. Z. 289 (1899). *C. longifolia*, var. *graminifolia* (Hook. f.) Cheesem. Man. Fl. N. Z. 314 (1906).

E. Lyallii (Hook. f.), comb. nov. *Celmisia Lyallii* Hook. f. Handb. N. Z. Fl. 133 (1864).

E. Lyallii, var. **pseudo-Lyallii** (Cheesem.), comb. nov. *Celmisia Lyallii*, var. *pseudo-Lyallii* Cheesem. Man. N. Z. Fl. 312 (1906).

E. Mackaui (Raoul), comb. nov. *Celmisia Mackau*i Raoul, Choix Pl. Nouv. Zel. 19, t. 14 (1846).

E. Macmahoni (Kirk), comb. nov. *Celmisia Macmahoni* Kirk, Trans. N. Z. Inst. xxvii. 327 (1894).

E. Monroi (Hook. f.), comb. nov. *Celmisia Monroi* Hook. f. Handb. N. Z. Fl. 133 (1864).

E. parva (Kirk), comb. nov. *Celmisia parva* Kirk, Trans. N. Z. Inst. xxvii. 328 (1894).

E. petiolata (Hook. f.), comb. nov. *Celmisia petiolata* Hook. f. Handb. N. Z. Fl. 134 (1864).

E. petiolata, var. **membranacea** (Kirk), comb. nov. *Celmisia petiolata*, var. *membranacea* Kirk, Stud. Fl. N. Z. 286 (1899).

E. petiolata, var. **rigida** (Kirk), comb. nov. *Celmisia petiolata*, var. *rigida* Kirk, Stud. Fl. N. Z. 286 (1899).

E. Petriei (Cheesem.), comb. nov. *Celmisia Petriei* Cheesem. Man. N. Z. Fl. 311 (1906).

E. prorepens (Petrie), comb. nov. *Celmisia prorepens* Petrie, Trans. N. Z. Inst. xix. 326 (1887).

E. ramulosa (Hook. f.), comb. nov. *Celmisia ramulosa* Hook. f. Handb. N. Z. Fl. 733 (1864).

E. rupestris (Cheesem.), comb. nov. *Celmisia rupestris* Cheesem. Trans. N. Z. Inst. xvi. 409 (1884).

E. Rutlandii (Kirk), comb. nov. *Celmisia Rutlandii* Kirk, Trans. N. Z. Inst. xxvii. 329 (1894).

E. sessiliflora (Hook. f.), comb. nov. *Celmisia sessiliflora* Hook. f. Handb. N. Z. Fl. 135 (1864).

E. Sinclairii (Hook. f.), comb. nov. *Celmisia Sinclairii* Hook. f. Handb. N. Z. Fl. 132 (1864).

E. spectabilis (Hook. f.), comb. nov. *Celmisia spectabilis* Hook. f. Fl. N. Z. i. 122, t. 33 (1853).

E. Traversii (Hook. f.), comb. nov. *Celmisia Traversii* Hook. f. Handb. N. Z. Fl. 134 (1864).

E. verbascifolia (Hook. f.), comb. nov. *Celmisia verbascifolia* Hook. f. Fl. N. Z. i. 121 (1853).

E. vernicosa (Hook. f.), comb. nov. *Celmisia vernicosa* Hook. f. Fl. Antarc. i. 34, tt. 26, 27 (1844).

E. viscosa (Hook. f.), comb. nov. *Celmisia viscosa* Hook. f. Handb. N. Z. Fl. 133 (1864).

E. Walkeri (Kirk), comb. nov. *Celmisia Walkeri* Kirk, Trans. N. Z. Inst. ix. 549 (1877).

Luina stricta (Greene), comb. nov. *Prenanthes stricta* Greene, Pittonia, ii. 21 (1889). *Luina Piperi* Robinson, Bot. Gaz. xvi. 43, t. 6 (1891). *Psacalium strictum* Greene, Pittonia, ii. 228 (1892). *Rainiera stricta* Greene, Pittonia, iii. 291 (1898). Some years ago the writer submitted material of this species to Dr. O. Hoffmann, author of the revision of the *Compositae* in Engler & Prantl's *Natürliche Pflanzenfamilien*. Replying to a request for his opinion as to the generic affinities of the plant, he wrote, under date of 20 September, 1897, "Nach Untersuchung des mir übersandten Materials halte ich Ihre Ansicht, dass die fragliche Pflanze in die Gattung *Luina* gehört für richtig, vorausgesetzt dass man *Luina* von *Cacalia* trennt. **** Doch würde ich für eine Vereinigung von *Luina* und *Cacalia* nicht stimmen." Having from my first investigation of the plant in question felt that it was a *Luina*, and having been confirmed in this view by the high authority of Dr. Hoffmann, I here associate with the generic name the earlier specific designation, according to the provisions of the International Rules.

Serratula deltoides (Ait.), comb. nov. *Onopordon deltoides* Ait. Hort. Kew. iii. 146 (1789). *Carduus atriplicifolius* Trev. Hort. Vratisl. 1820. *Silybum atriplicifolium* (Trev.) Fisch. Ind. Sem. Hort. Petrop. 1824. *Rhaponticum atriplicifolium* (Trev.) DC. Prod. vi. 663 (1837).

Onoseris onoseroides (HBK.), comb. nov. *Isotypus onoseroides* HBK. Nov. Gen. et Spec. iv. 12, t. 307 (1820). *Onoseris Isotypus* Benth. & Hook. f. Gen. Pl. ii. 487 (1873).

Chaetanthera cochlearifolia (Gray), comb. nov. *Oriastrum cochlearifolium* Gray, Proc. Am. Acad. v. 144 (1861).

Chaetanthera dioica (Remy), comb. nov. *Egania dioica* Remy in Gay, Fl. Chil. iii. 327, t. 36, f. 1 (1847); Wedd. Chlor. And. i. 32 (1855). *Oriastrum dioicum* (Remy) Reiche, Fl. Chil. iv. 357 (1904).

Chaetanthera Philippii, nom. nov. *Chondrochilus involucratus* Phil. Fl. Atac. 27, t. 3B (1860), not *Chaetanthera involucrata* Phil. Anal. Univ. Chil. xlvii. 6 (1894).

Chaetanthera splendens (Remy), comb. nov. *Elachia splendens* Remy in Gay, Fl. Chil. iii. 315 (1847). *Tylloma splendens* (Remy), Wedd. Chlor. And. i. 27, t. 8A (1855).

Trichocline reptans (Wedd.), comb. nov. *Bichenia reptans* Wedd. Chlor. And. 25, t. 8B (1855).

Gerbera gossypina (Royle), comb. nov. *Chaptalia gossypina* Royle, Ill. 18, 247, 251 (mere mentions, without characterization) & t. 57, f. 2, with floral details ("analyses") rendering the plate valid publication according to Article 37 of the International Rules. *Onoseris lanuginosa* Wall. Cat. no. 2929 (1828), nomen nudum. *Oreoseris lanuginosa* (Wall.) DC. Prod. vii. 17 ("1838"), citing Royle both by page and plate number; Deless. Ic. iv. 34 (citing both Royle and DC.), t. 76 ("1839"). It is impossible to see how the name *lanuginosa* can stand under the International Rules. Wallich's original publication of the name in 1828 is accompanied by no description. The publications of DeCandolle and Delessert must have been prepared at the same time and in collaboration, since they each cite the other by reference to page or plate, but it is significant that they both cite Royle's publication, a seemingly conclusive evidence that it must have been already in print. A manuscript note in the copy of the fourth volume of Delessert's *Icones* in the library of the Gray Herbarium states that it was received in December, 1840.

Gerbera maxima (D. Don), comb. nov. *Chaptalia maxima* D. Don, Prod. Fl. Nepal. 166 (1825). *Perdicium semiflosculare?* Ham. ex D. Don, l. c., not L. *Tussilago macrophylla* Wall. Cat. no. 2989 (1828). *Berniera nepalensis* DC. Prod. vii. 18 ("1838"). *Gerbera macrophylla* (Wall.) Benth. in Benth. & Hook. f. Gen. Pl. ii. 497 (1873), according to Hook. f. Fl. Brit. Ind. iii. 391 (1882). *Gerbera nepalensis* (DC.) Sch. Bip. Flora, xxvii. 780 (1844).

LEUCHERIA INTEGRIFOLIA (Phil.) Reiche, Fl. Chil. iv. 420 (1905), as *Leuceria*. This binomial was published by its author in a foot-note with the statement that he did not regard it as valid. Why authors should wish to publish names which they do not believe to be valid is a psychological mystery, which need not be discussed here. The point of interest in the present case lies in the fact that the discredited binomial would appear after all to be the legitimate designation of the plant in question. Reiche founded his new combination upon *Chabracea integrifolia* Phil. Anal. Univ. Santiago, xli. 744 (1872), but he states that *Leuceria integrifolia* (Phil.) [Reiche] cannot be accepted because of the existence of an earlier *Leuceria integrifolia* Phil. However, this earlier homonym does not appear to have been published and it seems probable that Reiche had in mind *Chabracea integrifolia* Phil. Linnaea, xxviii. 716 (1856), which on a later page of his work (430) Reiche includes in the synonymy of *Leuceria lithospermifolia*

(DC.) Reiche. It is obvious that the existence of the binomial *Chabreaa integrifolia* Phil. (1856), especially if invalid, does not prevent the validity of a *Leucheria integrifolia* founded upon Philippi's quite different *Chabreaa integrifolia* of 1872. In the synonymy of this species may be placed *Leuceria Hahnii* Franch. Miss. Sci. Cap. Horn, v. 349, t. 3 (1889). *L. fuegina* Phil. Anal. Univ. Santiago, lxxxvii. 98 (1894). It is not improbable that this may also have been the *Chabreaa suaveolens*, β *integrifolia* Sch. Bip. Flora, xxxviii. 121 (1855), nomen nudum.

Leucheria suaveolens (Urv.), comb. nov. *Perdicium suaveolens* Urv. Fl. des Iles Malouines, 43 (1825); Mém. Soc. Linn. Paris, iv. 611 (1826). *Lasiorkhiza ceterachifolia* & *L. viscosa* Cass. Dict. Sci. Nat. xliii. 80, 81 (1826). *Leuchaeria gossypina* Hook. & Arn. Comp. Bot. Mag. ii. 43 (1836). *Chabreaa suaveolens* (Urv.) DC. Prod. vii. 59 (1838).

PEREZIA VIRENS (D. Don) Hook. & Arn. Comp. Bot. Mag. i. 34 (1835). This species is referred by Reiche, Fl. Chil. iv. 445 (1905) to *P. Poeppigii* Less. Syn. Comp. 411 (1832). It is clear that the validity of *P. virens* must depend upon the date of its name-bringing synonym *Clarionea virens* D. Don, Trans. Linn. Soc. xvi. 208. It is true that the volume in which it was published bears the date 1833, but it is stated that Don's paper was read 1829 and there is every reason to suppose that the different papers of which the volume is composed were issued as printed and at quite different dates. Fortunately there is conclusive proof that Don's paper had reached print and issue before Lessing's publication, for Lessing cites Don's paper on pages 407, 408, 412, and elsewhere in his Synopsis, which should settle the matter of priority and lead to the re-instating of *P. virens* (D. Don) Hook. & Arn.

Trixis calcicola, spec. nov., fruticosa; ramis lignescentibus medullosis a cortice flavido-brunneo tectis foliosis costato-angulatis juvenate latiuscule alatis; foliis alternis oblongis attenuato-acuminatis mucronato-denticulatis 1-1.2 dm. longis 2.3-3 cm. latis utrinque viridibus supra rugulosis puberulis subtus venosissimis tenuiter pubescentibus dense glanduloso-atomiferis basi angustatis et in alas latiusculas denticulatas decurrentibus; alis internodia aequantibus vel superantibus usque ad 5 mm. latis deorsum cuneatim angustatis; corymbis ovoideis subthyrsiformibus densis ca. 1 dm. diametro et minus altis; bracteolis involucri exterioris 5 elliptico-oblongatis 1.7 cm. longis 5 mm. latis tenuibus vix acutis basi angustatis extus glanduloso-puberulis; squamis involucri interioris 8 oblongo-linearibus

1.2 cm. longis ca. 2 mm. latis obtusiusculis; acheniis 7.3 mm. longis subfusiformi-columnaribus griseis glanduloso-hispidulis; pappi setis laete albis 1.2 cm. longis tenuissimis levissime scabratibus numerosis.—Limestone ledges, Iguala Cañon, near Iguala, Guerrero, Mexico, altitude 760 m., 28 December, 1906, *C. G. Pringle*, no. 13, 921 (type, in Gray Herb.). The broadly winged stems would seem to place this species near *T. pterocaulis* Robinson & Greenman and *T. alata* Don. The former, however, has the bractlets of the outer involucre shorter than the scales of the inner involucre, leaves subentire, etc., while in *T. alata* Don the bractlets of the outer involucre are ovate-lanceolate and acuminate. The long obscure *T. michuacana* LaLav. & Lex., which from the original description would appear to have some points in common and might well be found in the same region, is said to have a simple herbaceous stem and a thyriform inflorescence nearly a foot long.

Launaea picridioides (Webb.), l. c., comb. nov. *Rhabdotheca picridioides* Webb. in Hook. Nig. Fl. 146 (1849).